# BEST STEM CELL LINES ARE NOW OFF LIMITS

***Current federal stem cell policy is slowing the pace of medical research because it requires that only embryonic stem cell lines derived before August 9, 2001 are eligible for federally funded research. (At present, only 22 lines satisfy that requirement.[1]) Since that arbitrarily chosen date, researchers have learned much about embryonic stem cells and have improved the methods by which they have created new lines. As a result, current policy excludes the highest-quality stem cell lines from federal funding.***

***Many of the embryonic stem cell lines created since that date are thus of superior quality for purposes of research and possible therapies. As the list below shows, there are at least 71 new lines that are published and officially verified[2], with many more lines unofficially reported through various sources. But U.S. researchers are forbidden from using federal funds to conduct research—or even study—any of those lines. This is undoubtedly slowing research progress.***

**As of January 11, 2005, there were 71 published and at least 56 unpublished embryonic stem cell lines ineligible for federal funding under the Administration's current policy.**

## PUBLISHED LINES- *INELIGIBLE FOR FEDERAL FUNDING*

### KOREA

**Seoul National University, Seoul, Korea**
3 lines, published *Stem Cells*, Feb 2005 issue.

**MizMedi Hospital, Seoul, Korea**
2 lines, published: *Biol Reprod* 69:2007
3 lines, published: *Biol Reprod* 2005 Jan;72(1):42-9
(**Second group derived on human feeder cells**)

**Maria Infertility Hospital Medical Institute, Seoul, Korea**
9 lines, published: *Hum Reprod* 19:676

### UNITED KINGDOM

**University of Newcastle upon Tyne, United Kingdom**
1 line, published: *Stem Cells* 22:79

**King's College London, United Kingdom**
1 line, published*: Reprod Biomed Online* 7:353

### SWEDEN

**Cellartis AB, Goteborg, Sweden**
13 lines, published*: Stem Cells* 22:367

**Karolinska Institute, Stockholm, Sweden**
2 lines, published*: Hum Rep*rod 18:1404

### IRAN

**Royan Institute, Teheran, Iran**
1 line, published*: Differentiation* 75:224

### UNITED STATES

**Harvard University, Harvard U.S.A.**
17 lines, published*: NEJM* 350:1353

**Reproductive Genetics Institute, Chicago, USA**
18 lines derived from embryos with genetic disorders, including two forms of muscular dystrophy, beta thalassemia, neurofibromatosis type 1, Marfan syndrome, Fragile X syndrome, and Fanconi's anemia, published *Reprod Biomed Online* 10: 105

### ISRAEL

**Rambam Medical Center, Haifa, Israel**
1 line, published: *Hum Reprod* 19:670

## UNPUBLISHED LINES[3]- *INELIGIBLE FOR FEDERAL FUNDING*

*(Unpublished materials have not been peer-reviewed.)*

### UNITED STATES

**Reproductive Genetics Institute, Chicago, U.S.A.**
At least 32 lines in addition to those published above [4].

**University of San Francisco, San Francisco, U.S.A.**
8 lines (**derived on human feeder** cells)

### ISRAEL

**Technion Haifa, Israel**
2 lines with genetic defects
(Van Waardenburg disease and myotonic muscular dystrophy)

### CZECH REPUBLIC

**Brno, Czeck Republic**
7 lines

### RUSSIA

**Russian Academy of Science, Moscow, Russia**
3 lines

### FINLAND

**University of Helsinki, Finland**
4 lines

[1] http://stemcells.nih.gov/research/registry/
[2] International Society for Stem Cell Research (ISSCR), http://www.isscr.org/science/sclines.htm
[3] Ibid
[4] Although the ISSCR web page does not list the number of unpublished lines at this institution, the *Boston Globe* (June 9, 2004) reported that 50 new lines had been derived there. Presumably 18 of those lines are now listed in the published lines section, with at least 32 more lines in existence.

JDRF Juvenile Diabetes Research Foundation International

*dedicated to finding a cure*